

SECTION 02 41 00

DEMOLITION

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Permits.
- B. Site conditions.
- C. Materials, equipment, and facilities.
- D. Preservation of reference markers.
- E. Demolition.
- F. Removal.
- G. Salvage.
- H. Disposal of removed materials and debris.

1.02 RELATED SECTIONS

- A. Temporary facilities, such as fences, barricades, warning lights, and other temporary safety measures, are specified in Section 01 52 00, Construction Facilities.
- B. Dust control is specified in Section 01 57 00, Temporary Controls.
- C. Selective demolition and removal for renovation of existing buildings, structures, and facilities are specified in Section 02 41 19, Selective Structure Demolition.
- D. Removal of vegetation and trees is specified in Section 31 11 00, Clearing and Grubbing.

1.03 MEASUREMENT AND PAYMENT

- A. Measurement:
 - 1. Demolition will be measured for payment by the lump-sum method, acceptably performed and completed.
 - 2. Material and placement for backfill will be measured separately for payment as specified in Section 31 00 00, Earthwork.
- B. Payment:
 - 1. Demolition will be paid for at the Contract lump-sum price as indicated in the Bid Schedule of the Bid Form.

2. Compacted backfill will be paid for as specified in Section 31 00 00, Earthwork.

1.04 REFERENCES

- A. American National Standards Institute (ANSI):
 1. ANSI A10.6 Safety Requirements for Demolition Operations
- B. State of California, Department of Transportation (Caltrans), Standard Specifications, Section 15, Existing Highway Facilities.

1.05 REGULATORY REQUIREMENTS

- A. In addition to the foregoing referenced standards, the regulatory requirements that govern the work of this Section include the following governing codes:
 1. California Code of Regulations (CCR), Title 8, Chapter 4, Subchapter 4 – Construction Safety Orders.
 2. California Code of Regulations (CCR), Title 24, Part 2, California Building Code, Chapter 33, "Site Work, Demolition and Construction."

1.06 DESCRIPTION

- A. Demolition as follows:
 1. Buildings and structure foundations, footings, and foundation systems shall be completely removed.
 2. Utility services to facilities to be removed or demolished shall be disconnected, cut, and capped.
- B. Removal of at-grade structures, such as existing pavements, curbs, gutters, sidewalks, and designated utility structures.

1.07 PERMITS

- A. The Contractor shall obtain all special permits and licenses and give all notices required for performance and completion of the demolition and removal work, hauling, and disposal of debris.

1.08 SUBMITTALS

- A. General: Refer to Section 01 33 00, Submittal Procedures, and Section 01 33 23, Shop Drawings, Product Data, and Samples, for submittal requirements and procedures.
- B. Demolition Plan: Submit a comprehensive demolition plan, describing the proposed sequence, methods, and equipment for demolition, removal, and disposal of

structure(s); include salvage if required. Do not proceed with demolition until the Engineer has given written approval of the demolition plan.

1. Shop Drawings: Include drawings in plan of all structures to be demolished. Indicate stages or phases of the demolition work.
- C. Permits: Submit copies of demolition, hauling, and debris disposal permits and notices for record purposes. Include description of proposed haul routes.
- D. Utility Severance Certificates: Provide certificates, issued by the utility owners, of severance of utility services for record purposes.
- E. Private Property Owner's Release: If material demolished and removed from the site will be deposited on private property, submit two copies of written releases not more than 15 Days before the start of work. Releases shall absolve the District from responsibility in connection with the depositing of material on private property, and shall be signed by the owners of such property on which the material will be deposited.
- F. Record Documents: Provide copies of all approved submittals, specified herein, for record purposes in accordance with the requirements of Section 01 78 39, Project Record Documents.

1.09 SITE CONDITIONS

- A. Protection of Persons and Property:
 1. Install chain link fencing around the area of demolition work as specified in Section 32 31 13, Chain Link Fences and Gates. Comply with applicable requirements of Section 01 52 00, Construction Facilities.
 2. Erect and maintain temporary bracing, shoring, lights, barricades, signs, and other measures as necessary to protect the public, workers, and adjoining property from damage from demolition work, all in accordance with applicable codes and regulations.
 3. Open depressions and excavations occurring as part of this work shall be barricaded and posted with warning lights when accessible through adjacent property or through public access. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
 4. Protect utilities, pavements, and facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by demolition operations.
- B. Protection of Utilities:
 1. Protect active sewer, water, gas, electric, and other utilities; and drainage and irrigation lines indicated or, when not indicated, found or otherwise made known to the Contractor before or during demolition work. If utility is damaged, immediately notify the utility owner for corrective action.

2. Arrange with and perform work required by utility companies and municipal departments for discontinuance or interruption of utility services due to demolition work.
- C. Noise and Dust Abatement: Comply with requirements specified in Section 01 57 00, Temporary Controls, and the following:
1. Provide continuous noise and dust abatement as required to prevent disturbance and nuisance to the public and workers and to the occupants of adjacent premises and surrounding areas. Dampen or cover areas affected by demolition operations as necessary to prevent dust nuisance.
 2. When a certain level of noise is unavoidable because of the nature of the work or equipment involved, and such noise is objectionable to the occupants of adjacent premises, make arrangements with the jurisdictional authorities to perform such work or operate such equipment at the most appropriate time periods of the day.
- D. Unknown Conditions:
1. The Contract Drawings and related documents may not represent all surface conditions at the site and adjoining areas. The known surface conditions are as indicated, and shall be compared with actual conditions before commencement of work.
 2. Existing utilities and drainage systems below grade are located from existing documents and from surface facilities such as manholes, valve boxes, area drains, and other such surface fixtures.
 3. If existing active services encountered are not indicated or otherwise made known to the Contractor and interfere with the permanent facilities under construction, notify the Engineer in writing, requesting instructions on their disposition. Take immediate steps to ensure that the service provided is not interrupted, and do not proceed with the work until written instructions are received from the Engineer.
 4. Thickness of existing pavements are from previous construction documents, and do not imply the actual depth or thickness of the total pavement or base material, where it occurs. Remove pavement of whatever thickness as required.

PART 2 – PRODUCTS

2.01 MATERIALS, EQUIPMENT, AND FACILITIES

- A. The Contractor shall furnish all materials, tools, equipment, devices, appurtenances, facilities, and services as required for performing the demolition and removal work.
- B. Materials used for backfill shall conform to the requirements for backfill of Section 31 00 00, Earthwork.

PART 3 – EXECUTION

3.01 PRESERVATION OF REFERENCE MARKERS

- A. Record the locations and designation of survey markers and monuments prior to their removal. Provide three reference points for each survey marker and monument removed, established by a licensed civil engineer or land surveyor currently registered in the State of California.
- B. Store removed markers and monuments during demolition work, and replace them upon completion of the work. Re-establish survey markers and monuments in conformance with the recorded reference points. Forward to the Engineer a letter verifying re-establishment of survey markers and monuments, signed by a licensed civil engineer or land surveyor currently registered in the State of California.

3.02 DEMOLITION

- A. Perform demolition in accordance with the approved Demolition Plan. Perform demolition work in accordance with ANSI A10.6 and the California Code of Regulations, Title 8 and Title 24, as applicable.
- B. Cap or plug sanitary sewer in accordance with the utility owner's standard details and instructions. Cap and plug pipe and other conduits abandoned due to demolition, with approved type caps and plugs as required by the utility owners.
- C. Backfill and compact depressions caused by excavations, demolition, and removal in accordance with applicable requirements of Section 31 00 00, Earthwork.

3.03 REMOVAL

- A. Remove existing pavements, structures, and site improvements that interfere with new construction, where demolition is not indicated. Coordinate as required with the work of Section 31 11 00, Clearing and Grubbing.
- B. Remove walls and masonry construction to a minimum depth of two feet below existing ground level in areas where such items do not interfere with new construction.
- C. Slabs may be broken for drainage and left in place where they are below grade and are not detrimental to the structural integrity of the fill or structure to be placed above, as determined by the Engineer.

3.04 SALVAGE

- A. Salvage or reuse materials and equipment as indicated on the Contract Drawings and as specified in the Contract Specifications.
- B. Protect metallic coatings on salvaged items. Remove adhering concrete from salvaged items.

- C. Repair, or replace with new material, salvaged material damaged or destroyed due to Contractor's negligence, as determined by the Engineer.

3.05 DISPOSAL OF REMOVED MATERIALS AND DEBRIS

- A. Dispose of removed materials, waste, trash, and debris in a safe, acceptable manner, in accordance with applicable laws and ordinances and as prescribed by authorities having jurisdiction.
- B. Burying of trash and debris on the site will not be permitted. Burning of trash and debris at the site will not be permitted.
- C. Remove trash and debris from the site at frequent intervals so that their presence will not delay the progress of the work or cause hazardous conditions for workers and the public.
- D. Removed materials, trash, and debris shall become the property of the Contractor and shall be removed from the District's property and disposed of in a legal manner. Location of disposal site and length of haul shall be the Contractor's responsibility.

3.06 CLEANUP

- A. Provide a clean and orderly site at all times in accordance with Section 01 74 14, Cleaning.

END OF SECTION 02 41 00